



Challenge

The high rise rack was illuminated with a total of 90x 1xT8 58W continuous row luminaires. The illumination in the working plane level and along the vertical shelf surfaces was inadequate. The maintenance costs were negatively affected by frequent lamp changes. The energy costs were too high.

LED Lighting Concept

The personal advisory took place on site. The luminaire rows were replaced by only 72x narrow beam 40W LED Linear Trunk System luminaires. The optical cover of the BuR Lighting LED modules is glare limiting. The individual luminaires were prepared and installed as light rows for 3-phase operation. The light color was set at 4,000 Kelvin. The energy-efficient new illumination resulted in an optimum illumination of the shelving surfaces.

BuR Lighting Lighting Design

BuR Lighting designs with DIALux evo are based on:

EN 12464-1 Norm

Illumination of Indoor Workplaces

ASR A3.4 Workplaces Guideline

Technical rules for the illumination of workplaces

Lighting Quality

- Smooth LED illumination
- Narrow beam intensive illumination of the work surface and shelf fronts
- Average illuminance: $E_m=200$ Lux
- High uniformity of vertical illuminance on the shelving surfaces
- Pleasant light colour: 4.000 Kelvin
- Very good colour rendering: $R_a>80$
- High visual comfort

BuR Lighting Luminaires

- Article: LED Linear Trunk System
- Art.-No.: 4811040P06040NN
- Housing: Aluminum - superslim
- Optical Cover: Polycarbonat
- LED Driver Input Voltage: 220V-240V
- LEDs: Nichia Chips
- Wattage: 40W
- Beam Angle: 60°
- Installation: Individual luminaires in a row

Savings and Benefits

- LED System Luminaires - superslim
- Electronic LED Drivers
- High-Frequency Control of LEDs
- LED Life Span: 50.000 h
- Luminous Efficacy: 130 lm/W
- Energy Savings p.a.: 9.295 kWh
- CO₂-Reduction p.a.: 4.973 kg
- Reduction of Maintenance Costs p.a.: 82%
- Uninterrupted, long-lasting operation